Fluctuations of Sulphur Springs.—M. Villot has studied the variations in the flow and strength of the sulphur springs at Camoins-les-Bains. The waters are cold, and their sulphur appears to come from the decomposition of gypsum by the organic matters with which the surface waters become charged while circulating upon the surface or in the sub-soil. They contain free sulphuretted hydrogen, together with sulphuret and sulphate of lime in solution. Irrigations by artificial canals injure the spring, sometimes diminishing the strength of the waters more than two-thirds when the bathing season is at its height.—*Ann. des Mines.* C.

Cotton in Italy.—The American war stimulated the cultivation of cotton in Italy, and excited great expectations of permanent prosperity. The continual and sudden diminutions of temperature, during the season when the bolls are ripening, proved a great obstacle to the cultivation in the southern provinces, and it is now confined almost entirely to limited districts in Sicily and the lower peninsula. The factories and private looms for weaving textile fabrics suffer greatly from competition with the importations from other countries, and the question of a protective tariff is awakening much interest. Fedele Borghi, referring to the early history of cotton manufacturing in the United States and to its subsequent marvelous growth, believes that a similar protective policy would lead to similar results in Italy.—*Il Politecnico.* C.

Modification of the Ruhmkorff Coil.—G. Scarpa and L. Baldo constructed a Ruhmkorff coil with a helix divided into three movable compartments. Under the ordinary arrangement the sparks produced by three Bunsen cells had a length of 6 centimetres (2·36 in.); when the middle compartment was removed without disturbing the others the length of the spark was perceptibly increased; when the thread of the middle compartment was wound around that of the other compartments they obtained a spark of 8 centimetres (3·15 in.) They then wound the wire so that the current would pass from the exterior extremity of one of the superficial coils to the corresponding central coil, and then continued through the other coil to the exterior extremity of the second superficial coil. With this arrangement they obtained a zig-zag spark of 13 centimetres (5·12 in.), of exceeding brilliancy.—*Revista Scientif. Indust.* C.